

WHAT IS CLAIMED IS:

1. A solid-state image pickup device comprising:  
a pixel unit including a plurality of unit pixels that perform photoelectric conversion;  
a driving circuit for driving said pixel unit to control output of a pixel output signal;  
an output signal processing circuit for subjecting the pixel output signal outputted from said pixel unit according to the driving of said driving circuit to predetermined signal processing, and outputting a resulting pixel output signal;  
a pixel defect determining circuit for capturing the pixel output signal outputted from said pixel unit according to the driving of said driving circuit, and determining a pixel defect by comparing the pixel output signal with a predetermined reference signal; and  
a timing generator for supplying a predetermined operating pulse to said driving circuit, said output signal processing circuit, and said pixel defect determining circuit.
2. The solid-state image pickup device as claimed in claim 1, further comprising a selecting circuit for selectively operating said output signal processing circuit in a normal output mode and said pixel defect

determining circuit in a defect test mode.

3. The solid-state image pickup device as claimed in claim 1,

wherein said driving circuit has a function of reading out the unit pixels of said pixel unit by one pixel or a pixel column or a pixel row.

4. The solid-state image pickup device as claimed in claim 1,

wherein said driving circuit has a function of performing a normal reading operation for selecting a pixel at a normal speed and a high-speed reading operation for selecting a pixel at a higher speed than that under said normal reading operation.

5. The solid-state image pickup device as claimed in claim 4,

wherein said driving circuit selects a pixel to read out a signal under said high-speed reading operation in a time of testing said pixel unit for a defect.

6. The solid-state image pickup device as claimed in claim 1,

wherein said driving circuit has a function of performing a normal reading operation for selecting pixels by one pixel or a pixel column or a pixel row, and a multi-pixel reading operation for selecting more pixels

than that under said normal reading operation.

7. The solid-state image pickup device as claimed in claim 6,

wherein said driving circuit selects pixels to read out a signal under said multi-pixel reading operation in a time of testing said pixel unit for a defect.

8. The solid-state image pickup device as claimed in claim 1,

wherein said driving circuit has a function of performing a normal reading operation for selecting pixels by one pixel or a pixel column or a pixel row, and a multi-pixel high-speed reading operation for selecting more pixels than that under said normal reading operation at a higher speed than that under said normal reading operation.

9. The solid-state image pickup device as claimed in claim 8,

wherein said driving circuit selects pixels to read out a signal under said multi-pixel high-speed reading operation in a time of testing said pixel unit for a defect.

10. A pixel defect testing method for a solid-state image pickup device, said solid-state image pickup device comprising: a pixel unit including a plurality of

unit pixels that perform photoelectric conversion; a driving circuit for driving said pixel unit to control output of a pixel output signal; an output signal processing circuit for subjecting the pixel output signal outputted from said pixel unit according to the driving of said driving circuit to predetermined signal processing, and outputting a resulting pixel output signal; and a timing generator for supplying a predetermined operating pulse to said driving circuit and said output signal processing circuit;

wherein the pixel output signal outputted from said pixel unit according to the driving of said driving circuit is captured independently of said output signal processing circuit, and a pixel defect is determined by comparing the pixel output signal with a predetermined reference signal, and a defect test on the pixel output signal outputted from said pixel unit is performed on the basis of an operating pulse from said timing generator.

11. The pixel defect testing method of a solid-state image pickup device as claimed in claim 10,

wherein said driving circuit selects a pixel at a higher speed than at a time of normal output to read out a signal in a time of testing said pixel unit for a defect.

12. The pixel defect testing method of a solid-state image pickup device as claimed in claim 10,

wherein said driving circuit selects more pixels than at a time of normal output to read out a signal in a time of testing said pixel unit for a defect.

13. The pixel defect testing method of a solid-state image pickup device as claimed in claim 10,

wherein said driving circuit selects more pixels at a higher speed than at a time of normal output to read out a signal in a time of testing said pixel unit for a defect.

14. The pixel defect testing method of a solid-state image pickup device as claimed in claim 10,

wherein in parallel with a defect test on said pixel unit, a predetermined test signal is inputted to other circuits mounted on an identical chip and a defect test on said other circuits is performed.